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REMARKS

Claims 1-41 are pending in the application. Claims 40 and 41 have been allowed. Claims 1, 5, 13, 17, 20, 24, 32, 36, and 39 have been rejected. Claims 2-4, 6-12, 14-16, 18, 19, 21-23, 25-31, 33-35, 37 and 38 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 1, 3, 20 and 22 are being amended. No new matter is being introduced by way of the amendments.

Applicants are filing herewith replacement drawings to correct informalities indicated on the "Notice of Draftspersons Patent Drawing Review," PTO-948. Applicants respectfully submit that the objection to the drawings by the Draftsperson should be withdrawn in view of the replacement drawings. No new matter is being introduced in the replacement drawings. The replacement drawings have certain non-essential names and markings removed from the drawings as originally filed. Accordingly, annotated drawings are being filed herewith indicating the removed non-essential names and markings by way of red-lined mark-ups.

Claims 1, 5, 13, 17, 20, 24, 32, 36, and 39 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Sankar et al. ("Time-Resolved Measurement of Liquid Mass Distribution in a Fuel Injector Spray Using an Optical Patternator").

Claim 1 is being amended to include all of the limitations of claim 2 which stands allowable if rewritten in independent form including all of the limitations of base claim 1. Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 102(b) is now moot.

Claim 2 is being canceled.

Claim 3 is being amended to depend from now amended claim 1 instead of now canceled claim 2. Because claims 3-19 depend from now amended claim 1, these claims should be allowed for at least the same reasons.

Claim 20 is being amended to include all of the limitations of claim 21 which stands allowable if rewritten in independent form including all of the limitations of base claim 20. Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 102(b) is now moot.

Claim 21 is being canceled.

Claim 22 is being amended to depend from now amended claim 20 instead of now canceled claim 21. Because claims 22-39 depend from now amended claim 20, these claims should be allowed for at least the same reasons.

New independent claim 42 includes the limitations of originally filed claim 9 rewritten in independent form including all of the limitations of base claim 1. Claim 9 stands objected to. Accordingly, Applicant respectfully requests that new independent claim 42 be entered.

Because new claim 43 depends from new independent claim 42 and includes all of the limitations of dependent claim 10, this claim should be entered for at least the same reasons.

New independent claim 44 includes the limitations of originally filed claim 11 rewritten in independent form including all of the limitations of base claim 1. Claim 11 stands objected to. Accordingly, Applicant respectfully requests that new independent claim 44 be entered.

Because new claim 45 depends from new independent claim 44 and includes all of the limitations of dependent claim 12, this claim should be entered for at least the same reasons.

New independent claim 46 includes the limitations of originally filed claim 28 rewritten in independent form including all of the limitations of base claim 20. Claim 28 stands objected to. Accordingly, Applicant respectfully requests that new independent claim 46 be entered.

Because new claim 47 depends from new independent claim 46 and includes all of the limitations of dependent claim 29, this claim should be entered for at least the same reasons.

New independent claim 48 includes the limitations of originally filed claim 30 rewritten in independent form including all of the limitations of base claim 20. Claim 30 stands objected to. Accordingly, Applicant respectfully requests that new independent claim 48 be entered.

Because new claim 49 depends from new independent claim 48 and includes all of the limitations of dependent claim 31, this claim should be entered for at least the same reasons.

New independent claim 50 includes the limitations of originally filed claim 33 rewritten in independent form including all of the limitations of base claim 20. Claim 33 stands objected to. Accordingly, Applicant respectfully requests that new independent claim 50 be entered.

Applicant is amending and canceling claims as described and listed in the Claim Listing above to expedite prosecution of this application and reserves the right to claim the subject

matter of the originally filed claims in a continuing application or take such other appropriate action as deemed necessary to protect the originally claimed invention.

CONCLUSION

In view of the above amendments and remarks, it is believed that all now pending claims (claims 1, 3-20, and 22-50) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Amendments to the Drawings

The drawings are being changed from grayscale to black and white representations in accordance with 37 CFR 1.84(a)(1). Certain words are being removed from the drawings but are unrelated to the inventive concepts illustrated by the drawings. No new matter is being introduced in the Replacement Drawings.

Attachment: Replacement Sheet
Annotated Marked-Up Drawings

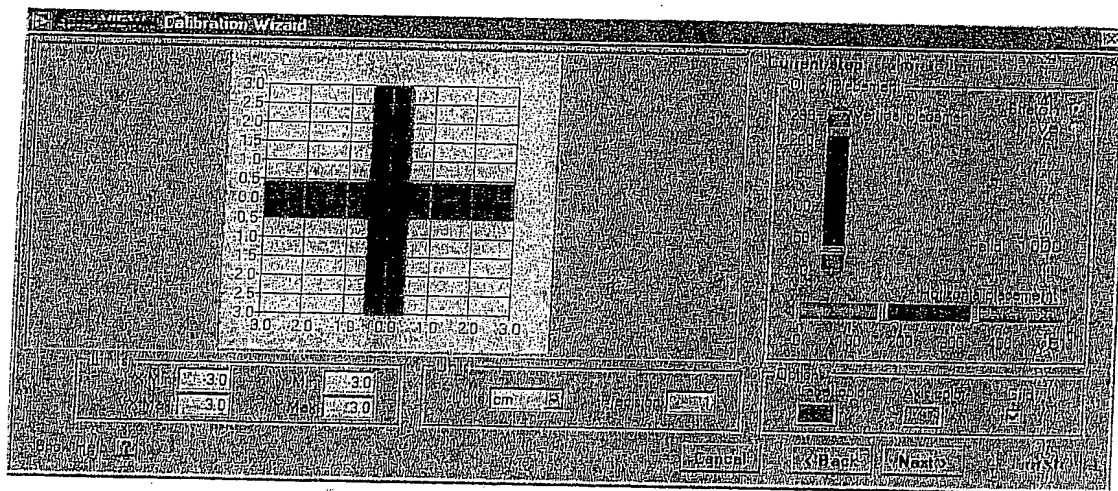


FIG. 1A

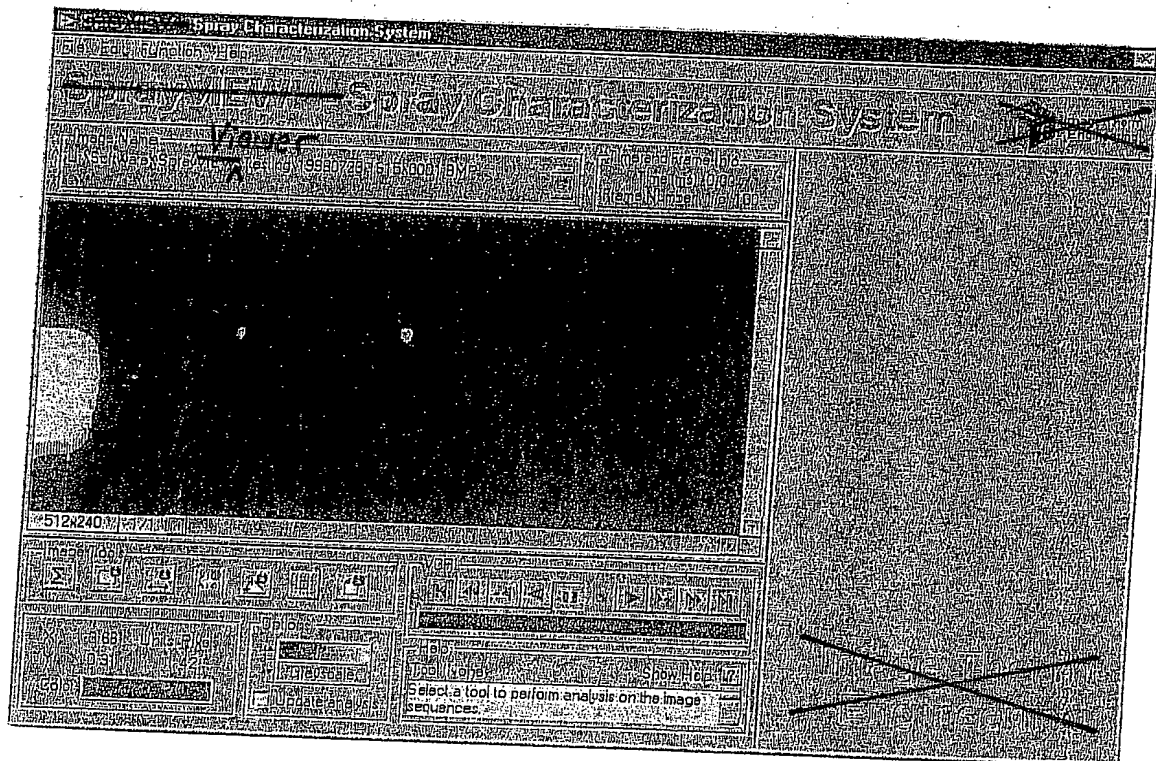


FIG. 2

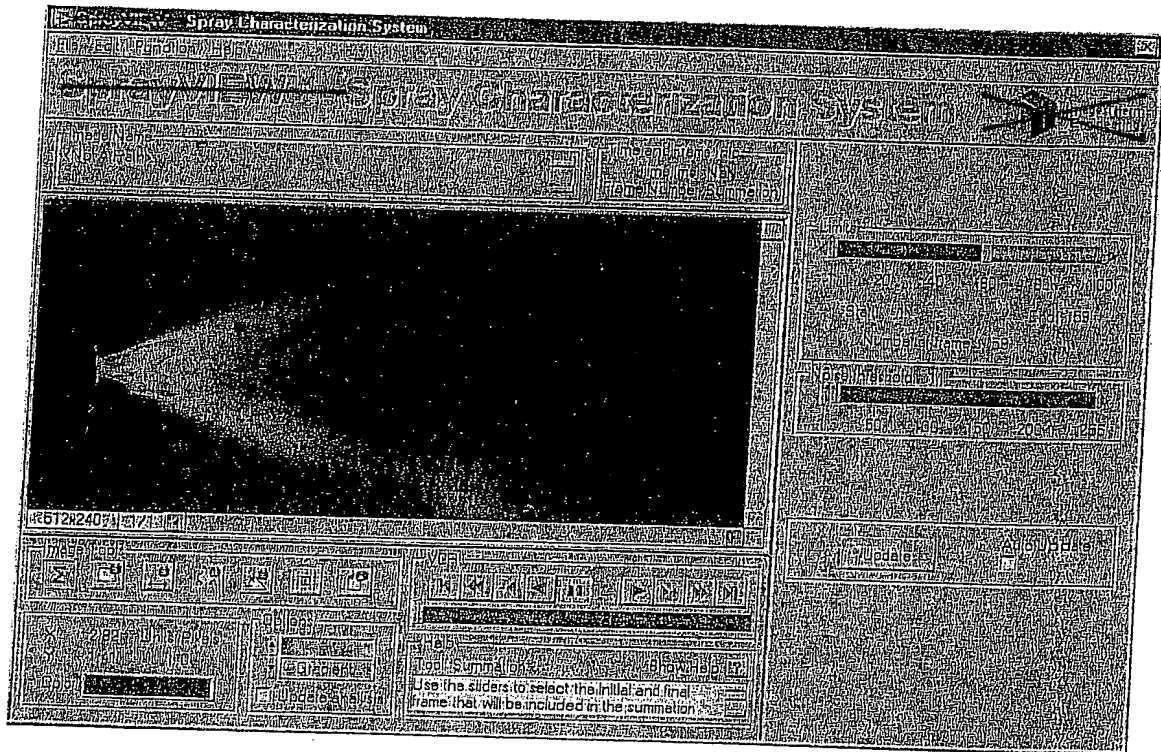


FIG. 3

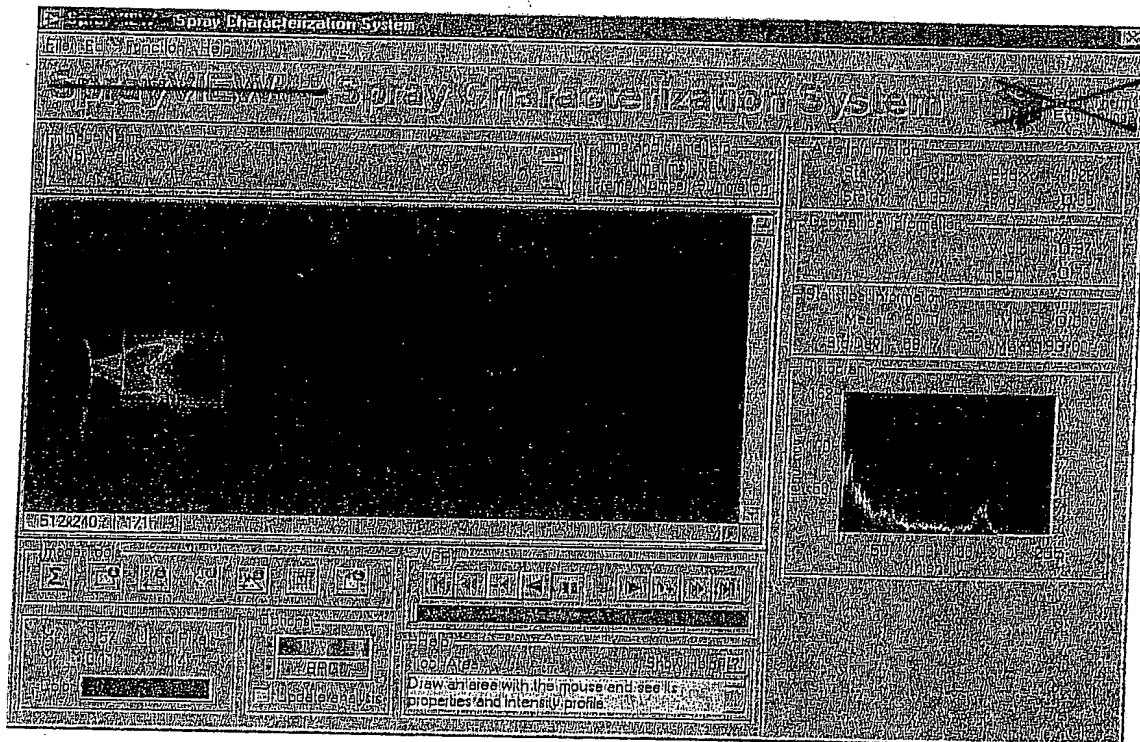


FIG. 4

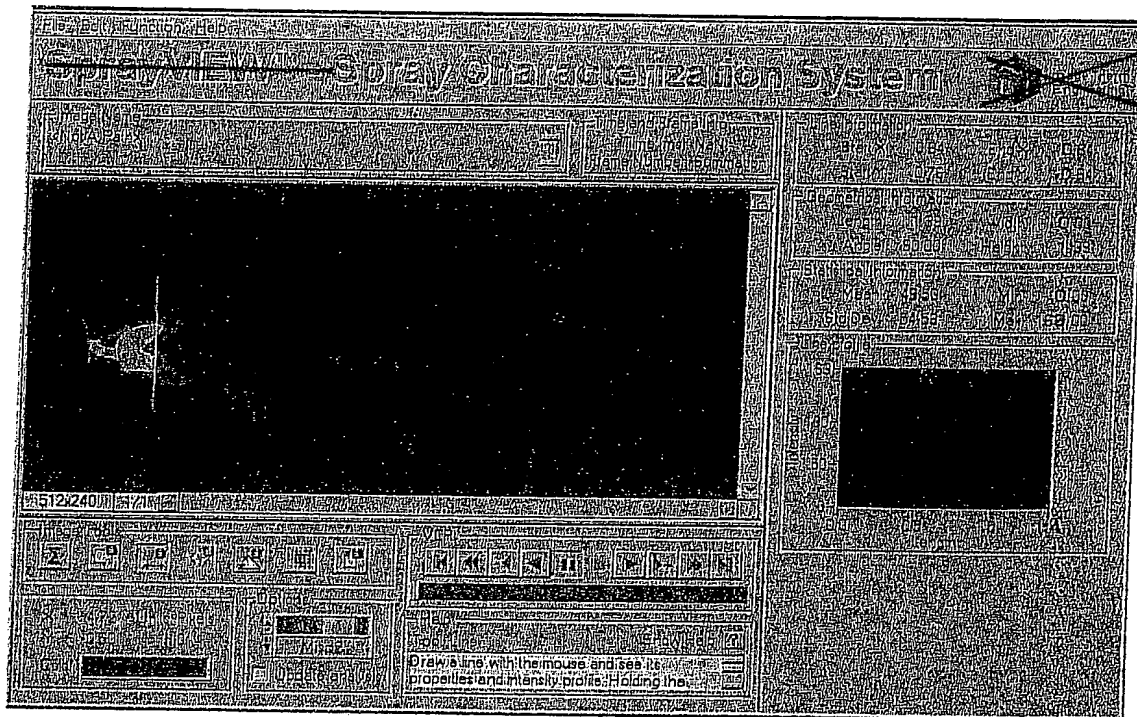


FIG. 5

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